

**METHODS AND APPARATUS FOR PULSED DOPING OR DRYING  
A SOOT PREFORM**

**Abstract**

5           A method of manufacturing an optical waveguide preform includes providing a  
first process gas atmosphere to a soot preform contained in a vessel. The first  
atmosphere is held in the vessel for a first reacting time sufficient to at least partially  
dope or dry the soot preform. The vessel is then at least partially refilled with a second  
doping or drying atmosphere. The second doping or drying atmosphere is held in the  
10       vessel for a second reacting time sufficient to further dope or dry the soot preform.

11 SOOT PREFORM